

REMARKS

Reconsideration of the presently solicited Claims 1 to 14 respectfully is requested. For the reasons indicated in detail hereafter these claims are urged to be in condition for allowance.

As described in the Specification, Applicants have provided an improved method for forming a negative pattern of carbon nanotubes, as well as an improved method for producing a carbon nanotube composite. The carbon nanotubes are initially modified by forming directly on their surfaces an oxirane and/or anhydride group as described. It is these carbon nanotubes that are dispersed in an organic solvent to form the liquid coating composition that is utilized. As discussed in Applicants' Specification, this usage of the surface-modified carbon nanotubes has been found to make possible increased mechanical properties (i.e., increased elastic modulus and increased tensile strength) when compared to the prior art involving the simple blending of components. See in this regard the data presented in Table 1 at Page 47 of the Specification.

Independent Claims 1 and 9 have been amended to expressly state that the carbon nanotubes that are dispersed to form the liquid coating composition bear the requisite surface modification as described. Additional Amendments have been made to further improve the form of the claims.

Non-elected Claims 15 and 16 have been canceled without prejudice. Applicants reserve the right to pursue the subject matter of these claims in a timely filed Divisional Patent Application.

The continued rejection of presently solicited method Claims 9 to 11 and 13 to 14 for forming an improved polymerized nanotube composite under 35 U.S.C. §102(b) over the different teachings of U.S. Patent No. 5,691,101 to Ushirogouchi et al. would be inappropriate. Ushirogouchi et al. is lacking in a teaching that carbon nanotubes are surface modified as expressly claimed by Applicants. Ushirogouchi et al. at most contemplates simple blending of components in all instances. Accordingly, the concept of Applicants' contribution is not disclosed and the improved results attributable thereto are absent in the teachings of the reference. The withdrawal of the rejection is urged to be in order and is respectfully requested.

It is well established law that patentability is negated under 35 U.S.C. §102 only when the prior disclosure is identical to the invention sought to be patented. Each and every element of the claimed invention must be disclosed in a single reference in complete detail. See Akzo N.V. v. United States ITC, 808 F.2d 1471, 1 U.S.P.Q.2d 1241 (Fed. Cir. 1986); Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986); Rolls-Royce Ltd. v. GTE Valeron Corp., 800 F.2d 1101, 231 U.S.P.Q. 185 (Fed. Cir. 1986); Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 230 U.S.P.Q. 81 (Fed. Cir. 1986); Great Northern Corp. v. Davir Core & Pad Co., 782 F.2d 159, 228 U.S.P.Q. 356 (Fed. Cir. 1986); In re Donohue, 766 F.2d 531, 226 U.S.P.Q. 619 (Fed. Cir. 1985); W.L. Gore & Assoc. v. Garlock, Inc., 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983); SSIH Equip. S.A. v. United States ITC, 713 F.2d 746, 218 U.S.P.Q. 678 (Fed. Cir. 1983); and Richardson v. Suzuki Motor Co., 868 F.2d 1226, 9 U.S.P.Q.2d 1913 (Fed. Cir. 1989).

The continued rejection of the presently solicited method of Claims 1 to 2, 4 and 6 to 8 for forming a negative pattern of carbon nanotubes under 35 U.S.C. §103(a) over the different teachings of U.S. Patent No. 5,691,101 to Ushirogouchi et al. in view of the similarly deficient teachings of U.S. Patent No. 6,872,503 to Wheland et al. likewise would not withstand detailed analysis. Basic deficiencies of the teachings of Ushirogouchi et al. are previously discussed. Mention of an organic solvent while employing the different technology of the secondary reference cannot reasonably be found to remedy basic shortcomings of the primary reference. There is no suggestion to combine the teachings of the references in a manner that arrives at Applicants' specifically claimed contribution. Even if the teachings were combined, Applicants' contribution still would be absent. Also, there is no suggestion of how one could obtain the improved results in the area of enhanced properties that are made possible by Applicants.

The continued rejection of presently solicited dependent Claim 3 which additionally specifies a photo intensifier over the different teachings of Ushirogouchi et al. U.S. Patent No. 5,691,101 in view of the inadequate teaching of U.S. Patent No. 6,872,503 to Wheland et al. and further in view of the teachings of U.S. Patent No. 6,033,740 to Oelbrandt et al. would be lacking sound technical and legal bases. The inadequacies of Ushirogouchi et al. and Wheland et al. are previously indicated. Any reference to a photo intensifier in a different context in Oelbrandt et al. could not reasonably be found to remedy the deficiencies of Ushirogouchi et al. and Wheland et al. Even if the reasonably derived teachings of the references were combined, Applicants' contribution would not result nor are the improved results achieved by Applicants rendered obviously apparent.

The continued rejection of presently solicited dependent Claim 5 involving certain coupling agents under 35 U.S.C. §103(a) over the different teachings of U.S. Patent No. 5,691,101 to Ushirogouchi et al. in view of the inadequate teachings of U.S. Patent No. 6,872,503 to Wheland et al. further in view of the teachings of U.S. Patent No. 6,777,159 to Itatani et al. also would be lacking sound technical and legal bases. The inadequacies of Ushirogouchi et al. and Wheland et al. are previously identified. Any reference to a coupling agent in a different context of Itatani et al. could not reasonably be found to remedy the deficiencies of Ushirogouchi et al. and Wheland et al. Even if the teaching of each reference were combined, Applicants' contribution still would not result nor would the improved results achieved by Applicants be rendered obviously apparent.

Finally, the continued rejection of presently solicited dependent Claim 12 involving the use of certain coupling agents under 35 U.S.C. §103(a) over the different teachings of U.S. Patent No. 5,691,101 to Ushirogouchi et al. in view of the inadequate teachings of U.S. Patent No. 6,777,159 to Itatani et al. would not withstand detailed analysis. Inadequacies of Ushirogouchi et al. are previously identified. Any reference to a coupling agent in the different context of Itatani et al. could not reasonably be found to remedy the basic deficiencies of the primary reference. Even if the teachings of both references were combined, Applicants' contribution still would not result nor are the improved results achieved by Applicants be rendered obviously apparent.

It respectfully is submitted that no prima facie showing of obviousness has been presented with respect to the presently solicited claims. It is basic to the examination process that in order to establish prima facie obviousness of a claimed

invention, all of the claim limitations must be taught or suggested by the prior art.

See M.P.E.P. §2143.03 in this regard. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (CCPA 1970). If an independent claim is non-obvious under 35 U.S.C. §103, then any claim that depends therefrom is patentable.

If there is any remaining point that requires clarification prior to the allowance of the Application, the Examiner is urged to telephone the undersigned attorney so that the matter can be discussed and resolved.

Respectfully submitted,

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